In re Application of: NDL et al Serial No. 10/088,025

MARKED-UP COPY OF AMENDED SPECIFICAITON AND CLAIMS

IN THE SPECIFICATION:

Amend the specification as follows.

Delete the paragraph spanning page 5, lines 29-33 and insert the following therefor:

--The invention furthermore relates to an ATP/ADP translocator gene for use in one of the above-described plants with an Arabidopsis thaliana [nucleotide] <u>amino acid</u> sequence (EMBL Accession No. Z49227) encoding [the amino acid] <u>by the nucleotide</u> sequence shown in Fig. 1 (SEQ ID NO:1).--

IN THE CLAIMS:

Amend the claims as follows:

6. (Twice Amended) ATP/ADP translocator gene for use in a plant according to Claim 1 with an Arabidopsis thaliana [nucleotide sequence] <u>amino acid sequence</u> (EMBL Accession No. Z49227) [encoding the amino acid] <u>encoded by the nucleotide</u> sequence shown in Fig. 1 (SEQ ID NO:1).



Fig. 1: Arabidopsis thaliana cDNA corresponding to the coding region of the chloroplast ATP/ADP translocator 1 (EMBL Accession Number Z49227) (SEQ ID NO:1)

atggaagctgtgattcaaaccagagggcttctctcttttacccaccaaacccatcggagtgagaagcca acticagccticccatggcttaaagcagagacttticgccgcgaagccaagaaatctacatgggtgtct ctateetttaaegggeaeaagaaattteaaaeetttgageeaaeeetgeatgggatttegattteeeaea aagagagaagcaccgagttcatatgcaaggcggaggcggctgctggcgacggagctgtcttcg gcgaagcgattccgcagctgttgtagcctcgcggaagattttcggtgtggaggttgcaaccttgaaaaa gattatecetttaggattgatgttettttgtattetttteaattaeaeaattetgagggataeaaaggatgtettg gtggtgacggcgaaaggaagttctgctgagattatacctttcttgaagacttgggtgaatcttcctatggc cattgggtttatgctcctctacactaaactctccaatgttctctccaagaaggctctgttttacactgttattgtc cettteateatetaetttgggggetttggtttegteatgtaeceteteageaactatatteaeceggaagetet cgcagataagctccttacaaccctcggcccaagattcatgggtcctattgcaatattgcggatttggagtt tetgtttgttttatgttatggetgagetttggggtagtgtggtggteteagttetettetggggetttgetaateag atcacaactgtggatgaagccaagaaattctatcctttgttcggcattggagccaatgttgcactgattttc ttgaaagccatgatgagcattgtggtgggaatgggactcgcatttgtctctattggtgggtcgaataga tatgttcctcttccaacccgtagcaagaacaagaaggagaaaccgaagatgggaacgatggaaag cttgaagttcttggtatcatcaccatacattagagatcttgctactttagtggtggcatacggtattagtatca atcttgtggaagtcacatggaaatcaaagcttaaagctcagttccctagcccgaatgagtactcagcatt tatgggagcattctcaacctgcacgggtgttgcaacattcacaatgatgcttctcagccaatacgtattca ataagtatggttggggagtagetgeaaagateaceceaactgttetgetattgactggtgttgcgttettet ctctaatattgtttggcggcccattcgcaccacttgttgccaagcttggtatgacaccgctacttgcagctgt gtatgtcggtgcccttcagaatatcttcagcaagagtgccaagtacagcttgttcgacccttgcaaagaa atggcctatatcccattggatgaggacaccaaggttaaaggcaaagctgcgattgacgtggtctgcaa cccattaggaaaatcagggggagctttaatacagcagttcatgatcttatcctttggatcactagcgaatt caacgccgtatctaggaatgatcttgttggttattgtcactgcgtggttagctgcagctaagtcgctggag ggacagttcaacagcttgcgtctgaagaagagcttgagaaggaaatggagagagcttcatcggtga

Fig. 2: Solanum tuberosum cDNA corresponding to the coding region of the chloroplast ATP/ADP translocator 1 (EMBL Accession Number Y10821) (SEQ ID NO:2)

atggaaggtgttttacaaacaagaggcttctttctttgccttctaaacccaaaatcaaggctttttacccat tgcctcaagggggtctaaggaacagattcaattctttaagtagtttaaagcctaatcctcttaatggggttt ctttatcttcaaatgggtttcaaaaagttcaaggctttgacacaaagcctcagttgtttggccaaaagaag aggigitticcaatatgcaaagctgaggctgctgctgctgctggtgcagctgatggacagccactttttgtt gaaaaggagcaacctaagtttatggggattgaacttgtgacccttaagaaaattataccacttggggcg tccagtgctgagattatccctttcttgaaaacttgggtgaatttgcctatggctattggattcatgcttttgtac acaaagttggctaatgtgttgtcaaaggaggctcttttttatactgttatacttccttttattgcattctttggggc gtttggttttgttttgtatcctcttagcaattactttcaccctacagcttttgctgataagcttctcaatacccttgg tccaagatttcttggaccaattgctattctgaggatctggagtttctgcttgttctatgtcatggctgagctttg gggaagtgtggttgctagtactcttttggggatttgctaatcagatcacgactgtcgatgaggctaaga gattctatcctttgtttggacttggagcgaatgttgctcttattttctctggtcgcacagtgaagtacttttctag cttgagaagctctttaggtcctggagttgatggttgggctatctccctgaaaggaatgatgagtattgttgt gaagaagaaggtaaaacctaacatgaccacaatggagagcttgaagttcttggtctcttcaaaatatat cagggatcttgccacattggttgtagcatatggcattagtatcaaccttgttgaagttacatggaagtcaa acctactettgcgaagtttggaatgactcctcttctagcagctgtctatgtgggtgcaatgcagaacattttc agtaagagtgcaaagtatagtttgtttgacccctgcaaagaaatggcctacattcctttggatgaggaca ccaaggttaaagggaaggcagcaatcgatgttgtctgcaatccactgggaaagtctggaggagctttg atacaacagttcatgattttgacttttggttcacttgccagctcgacaccctaccttggcggtgtgctcttagt gatettgagaaggaaatggagagageategttgaagateeetgtegtgteteaaaatgaaaatggaa atggtcctctctcaagtgagtcatcactaaatcccgctggaggtgactctaccaacgcttcatcggaacc ctcctccccaaggagcctgtaa

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Fig. 1: Arabidopsis thaliana cDNA corresponding to the coding region of the chloroplast ATP/ADP translocator 1 (EMBL Accession Number Z49227) (SEQ ID NO:1)

atggaagctgtgattcaaaccagagggcttctctcttttacccaccaaacccatcggagtgagaagcca acticagccttcccatggcttaaagcagagacttttcgccgcgaagccaagaaatctacatgggtgtct ctatcctttaacgggcacaagaaatttcaaacctttgagccaaccctgcatgggatttcgatttcccaca aagagagaagcaccgagttcatatgcaaggcggaggcgcggctgctggcgacggagctgtcttcg gcgaagcgattccgcagctgttgtagcctcgcggaagattttcggtgtggaggttgcaaccttgaaaaa gattatccctttaggattgatgttcttttgtattcttttcaattacacaattctgagggatacaaaggatgtcttg gtggtgacggcgaaaggaagttctgctgagattatacctttcttgaagacttgggtgaatcttcctatggc cattgggtttatgctcctctacactaaactctccaatgttctctccaagaaggctctgttttacactgttattgtc cettteateatetaetttgggggetttggtttegteatgtaeceteteageaactatatteaeceggaagetet cgcagataageteettacaacceteggeecaagatteatgggteetattgcaatattgeggatttggagtt tetgtttgtttatgttatggetgagetttggggtagtggtggtgtcteagttetettetggggetttgetaateag atcacaactgtggatgaagccaagaaattctatcctttgttcggcattggagccaatgttgcactgattttc ttgaaageeatgatgageattgtggtggaatgggactegeatttgtetetetattggtgggtegaataga tatgtteetetteeaaccegtageaagaacaagaaggagaaaccgaagatgggaacgatggaaag cttgaagttettggtateateaceataeattagagatettgetaetttagtggtggeataeggtattagtatea atcttgtggaagtcacatggaaatcaaagcttaaagctcagttccctagcccgaatgagtactcagcatt tatgggagcattctcaacctgcacgggtgttgcaacattcacaatgatgcttctcagccaatacgtattca ataagtatqqttqqqqaqtagctqcaaaqatcaccccaactqttctqctattqactqqtqttqcqttcttct ctctaatattgtttggcggcccattcgcaccacttgttgccaagcttggtatgacaccgctacttgcagctgt gtatgteggtgecetteagaatatetteageaagagtgecaagtacagettgttegaceettgcaaagaa atggcctatatcccattggatgaggacaccaaggttaaaggcaaagctgcgattgacgtggtctgcaa cccattaggaaaatcagggggagctttaatacagcagttcatgatcttatcctttggatcactagcgaatt caacgccgtatctaggaatgatcttgttggttattgtcactgcgtggttagctgcagctaagtcgctggag ggacagttcaacagcttgcgtctgaagaagagcttgagaaggaaatggagagagcttcatcggtga

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Fig. 2: Solanum tuberosum cDNA corresponding to the coding region of the chloroplast ATP/ADP translocator 1 (EMBL Accession Number Y10821) (SEQ ID NO:2)

atggaaggtgttttacaaacaagagggcttctttctttgccttctaaacccaaaatcaaggctttttacccat tgcctcaagggggtctaaggaacagattcaattctttaagtagtttaaagcctaatcctcttaatggggttt ctttatcttcaaatgggtttcaaaaagttcaaggctttgacacaaagcctcagttgtttggccaaaagaag aggtgttttccaatatgcaaagctgaggctgctgctgctgctggtgcagctgatggacagccactttttgtt gaaaaggagcaacctaagtttatggggattgaacttgtgacccttaagaaaattataccacttggggc atgttcttttgtattctgtttaattatacaatccttagggatactaaggatgtgttgttgtaacagctaaaggg tccagtgctgagattatccctttcttgaaaacttgggtgaatttgcctatggctattggattcatgcttttgtac acaaagttggctaatgtgttgtcaaaggaggctcttttttatactgttatacttccttttattgcattctttggggc gtttggttttgttttgtatcctcttagcaattactttcaccctacagcttttgctgataagcttctcaatacccttgg tccaagattictiggaccaattgctattctgaggatctggagtttctgcttgttctatgtcatggctgagctttg gggaagtgtggtggtttcagtactcttttggggatttgctaatcagatcacgactgtcgatgaggctaaga gattctatcctttgtttggacttggagcgaatgttgctcttattttctctggtcgcacagtgaagtacttttctag cttgagaagctctttaggtcctggagttgatggttgggctatctccctgaaaggaatgatgagtattgttgt gaagaagaaggtaaaacctaacatgaccacaatggagagcttgaagttcttggtctcttcaaaatatat cagggatcttgccacattggttgtagcatatggcattagtatcaaccttgttgaagttacatggaagtcaa ageteaaageteagtteecaageeceaatgaatacteeteatteatgggtgaetteteaaetgetaetgg acctactettgcgaagtttggaatgactectettetageagetgtetatgtgggtgcaatgcagaacatttte agtaagagtgcaaagtatagtttgtttgacccctgcaaagaaatggcctacattcctttggatgaggaca ccaaggttaaagggaaggcagcaatcgatgttgtctgcaatccactgggaaagtctggaggagctttg atacaacagttcatgattttgacttttggttcacttgccagctcgacaccctaccttggcggtgtgctcttagt gatettgagaaggaaatggagagagcategttgaagateeetgtegtgteteaaaatgaaaatggaa atggtcctctctcaagtgagtcatcactaaatcccgctggaggtgactctaccaacgcttcatcggaacc ctcctccccaaggagcctgtaa